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Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2009; month=6; day=2; hr=14; min=18; sec=48; ms=673; ]

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Application No: 10506543

Version No: 1.0

Input Set:

Output Set:

Started: 2009-05-22 19:40:25.394

Finished: 2009-05-22 19:40:40.009

Elapsed: 0 hr(s) 0 min(s) 14 sec(s) 615 ms

Total Warnings: 102

Total Errors: 40

No. of SeqIDs Defined: 102

Actual SeqID Count: 102

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
E 257	Invalid sequence data feature in <221> in SEQ ID (1)
E 257	Invalid sequence data feature in <221> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
E 257	Invalid sequence data feature in <221> in SEQ ID (2)
E 257	Invalid sequence data feature in <221> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
E 257	Invalid sequence data feature in <221> in SEQ ID (3)
E 257	Invalid sequence data feature in <221> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
E 257	Invalid sequence data feature in <221> in SEQ ID (4)
E 257	Invalid sequence data feature in <221> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
E 257	Invalid sequence data feature in <221> in SEQ ID (5)
E 257	Invalid sequence data feature in <221> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
E 257	Invalid sequence data feature in <221> in SEQ ID (6)
E 257	Invalid sequence data feature in <221> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
E 257	Invalid sequence data feature in <221> in SEQ ID (7)

**Input Set:**

**Output Set:**

**Started:** 2009-05-22 19:40:25.394  
**Finished:** 2009-05-22 19:40:40.009  
**Elapsed:** 0 hr(s) 0 min(s) 14 sec(s) 615 ms  
**Total Warnings:** 102  
**Total Errors:** 40  
**No. of SeqIDs Defined:** 102  
**Actual SeqID Count:** 102

Error code	Error Description
E 257	Invalid sequence data feature in <221> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20) This error has occurred more than 20 times, will not be displayed
E 257	Invalid sequence data feature in <221> in SEQ ID (47)
E 257	Invalid sequence data feature in <221> in SEQ ID (47)
E 257	Invalid sequence data feature in <221> in SEQ ID (49)
E 257	Invalid sequence data feature in <221> in SEQ ID (49)
E 257	Invalid sequence data feature in <221> in SEQ ID (51)
E 257	Invalid sequence data feature in <221> in SEQ ID (51) This error has occurred more than 20 times, will not be displayed



# SEQUENCE LISTING

<110> OLMARKER, Kjell  
 <120> NOVEL OF CYTOKINE INHIBITORS  
 <130> 1003301-000175  
 <140> 10506543  
 <141> 2009-05-22  
 <150> PCT/SE03/00347  
 <151> 2003-03-04  
 <150> 10/092,919  
 <151> 2002-03-08  
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 <170> PatentIn version 2.1  
 <210> 1  
 <211> 25  
 <212> PRT  
 <213> Artificial Sequence  
 <220>  
 <221> MOD\_RES  
 <222> (1)  
 <223> ACETYLTATION  
 <220>  
 <221> PEPTIDE  
 <222> (1)  
 <223> Amino acid 1 is Xaa wherein Xaa = Glu or no amino acid.  
 <220>  
 <221> PEPTIDE  
 <222> (2)  
 <223> Amino acid 2 is Xaa wherein Xaa = Ala or no amino acid.  
 <220>  
 <221> PEPTIDE  
 <222> (5)  
 <223> Amino acid 5 is Xaa wherein Xaa = Cys or Ala.  
 <220>  
 <221> PEPTIDE  
 <222> (7)  
 <223> Amino acid 7 is Xaa wherein Xaa = Gln or Lys.  
 <220>  
 <221> PEPTIDE  
 <222> (11)

<223> Amino acid 11 is Xaa wherein Xaa = Asn or Asp.

<220>

<221> PEPTIDE

<222> (17)..(25)

<223> Amino acids 17 25 are Xaa wherein Xaa = Gly, Pro, Pro, Val, Ser,  
Cys, Ile, Lys, Arg

<220>

<221> MOD\_RES

<222> (25)

<223> AMIDATION

<220>

<223> Description of Artificial Sequence: of natural or artificial  
origin, corresponding to modification of the sequence  
consisting of aa 16 40 in human lactoferrin

<400> 1

Xaa	Xaa	Thr	Lys	Xaa	Phe	Xaa	Trp	Gln	Arg	Xaa	Met	Arg	Lys	Val	Arg
1				5				10					15		

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20				25	

<210> 2

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

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<222> (1)

<223> ACETYLATION

<220>

<221> MOD\_RES

<222> (25)

<223> AMIDATION

<220>

<223> Description of Artificial Sequence: of natural or  
artificial origin, corresponding to a modification  
of the sequence consisting of amino acids 16 40 in  
human lactoferrin

<400> 2

Glu	Ala	Thr	Lys	Cys	Phe	Gln	Trp	Gln	Arg	Asn	Met	Arg	Lys	Val	Arg
1				5				10					15		

Gly	Pro	Pro	Val	Ser	Cys	Ile	Lys	Arg
			20				25	

<210> 3

<211> 25  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
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<223> ACETYLATION

<220>  
<221> MOD\_RES  
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<223> AMIDATION

<220>  
<221> DISULFID  
<222> (5)..(22)

<220>  
<223> Description of Artificial Sequence: of natural or  
artificial origin, corresponding to a modification  
of the sequence consisting of amino acids 16 40 in  
human lactoferrin

<400> 3  
Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg  
1 5 10 15  
  
Gly Pro Pro Val Ser Cys Ile Lys Arg  
20 25

<210> 4  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> ACETYLATION

<220>  
<221> MOD\_RES  
<222> (23)..(23)  
<223> AMIDATION

<220>  
<223> Description of Artificial Sequence: of natural or  
artificial origin, corresponding to a modification  
of the sequence consisting of amino acids 18 40 in  
human lactoferrin

<400> 4  
Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg Gly Pro  
1 5 10 15

Pro Val Ser Cys Ile Lys Arg  
20

<210> 5  
<211> 23  
<212> PRT  
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<220>  
<221> MOD\_RES  
<222> (1)  
<223> ACETYLATION

<220>  
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<223> AMIDATION

<220>  
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<222> (3)..(20)

<220>  
<223> Description of Artificial Sequence: of natural or  
artificial origin, corresponding to a modification  
of the sequence consisting of amino acids 18 40 in  
human lactoferrin

<400> 5  
Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg Gly Pro  
1 5 10 15

Pro Val Ser Cys Ile Lys Arg  
20

<210> 6  
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<212> PRT  
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<220>  
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<222> (1)  
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<220>  
<221> MOD\_RES  
<222> (14)  
<223> AMIDATION

<220>  
<223> Description of Artificial Sequence: of natural or



artificial origin, corresponding to a modification

of the sequence consisting of amino acids 18 31 in  
human lactoferrin

<400> 6

Thr Lys Ala Phe Lys Trp Gln Arg Asp Met Arg Lys Val Arg  
1 5 10

<210> 7

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD\_RES

<222> (1)

<223> ACETYLATION

<220>

<221> MOD\_RES

<222> (14)

<223> AMIDATION

<220>

<221> BINDING

<222> (5)..(9)

<223> LACTAM

<220>

<223> Description of Artificial Sequence: of natural or  
artificial origin, corresponding to a modification  
of the sequence consisting of aa 18 31 in human  
lactoferrin; a lactam is formed between aa 5 and 9

<400> 7

Thr Lys Ala Phe Lys Trp Gln Arg Asp Met Arg Lys Val Arg  
1 5 10

<210> 8

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 12 31 of the protein  
human lactoferrin

<400> 8

Val Ser Gln Pro Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met  
1 5 10 15

Arg Lys Val Arg  
20

<210> 9  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 12 18 of the protein  
human lactoferrin

<400> 9  
Val Ser Gln Pro Glu Ala Thr  
1 5

<210> 10  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 13 19 of the protein  
human lactoferrin

<400> 10  
Ser Gln Pro Glu Ala Thr Lys  
1 5

<210> 11  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 14 20 of the protein  
human lactoferrin

<400> 11  
Gln Pro Glu Ala Thr Lys Cys  
1 5

<210> 12  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
  
natural or artificial origin consisting of the  
amino acids in positions 15 21 of the protein  
human lactoferrin

<400> 12  
Pro Glu Ala Thr Lys Cys Phe  
1 5

<210> 13  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 16 22 of the protein  
human lactoferrin

<400> 13  
Glu Ala Thr Lys Cys Phe Gln  
1 5

<210> 14  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 17 23 of the protein  
human lactoferrin

<400> 14  
Ala Thr Lys Cys Phe Gln Trp  
1 5

<210> 15  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 18 24 of the protein  
human lactoferrin

<400> 15

Thr Lys Cys Phe Gln Trp Gln  
1 5

<210> 16

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 19 25 of the protein  
human lactoferrin

<400> 16

Lys Cys Phe Gln Trp Gln Arg  
1 5

<210> 17

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 20 26 of the protein  
human lactoferrin

<400> 17

Cys Phe Gln Trp Gln Arg Asn  
1 5

<210> 18

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 21 27 of the protein  
human lactoferrin

<400> 18

Phe Gln Trp Gln Arg Asn Met

1 5

<210> 19

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of

natural or artificial origin consisting of the  
amino acids in positions 22 28 of the protein  
human lactoferrin

<400> 19

Gln Trp Gln Arg Asn Met Arg

1 5

<210> 20

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of

natural or artificial origin consisting of the  
amino acids in positions 23 29 of the protein  
human lactoferrin

<400> 20

Trp Gln Arg Asn Met Arg Lys

1 5

<210> 21

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of

natural or artificial origin consisting of the  
amino acids in positions 24 30 of the protein  
human lactoferrin

<400> 21

Gln Arg Asn Met Arg Lys Val

1 5

<210> 22  
<211> 7  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 25 31 of the protein  
human lactoferrin

<400> 22  
Arg Asn Met Arg Lys Val Arg  
1 5

<210> 23  
<211> 8  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 16 23 of the protein  
human lactoferrin

<400> 23  
Glu Ala Thr Lys Cys Phe Gln Trp  
1 5

<210> 24  
<211> 9  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 16 24 of the protein  
human lactoferrin

<400> 24  
Glu Ala Thr Lys Cys Phe Gln Trp Gln  
1 5

<210> 25  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 16 25 of the protein  
human lactoferrin

<400> 25

Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg  
1 5 10

<210> 26

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
  
natural or artificial origin consisting of the  
amino acids in positions 16 26 of the protein  
human lactoferrin

<400> 26

Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn  
1 5 10

<210> 27

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 16 27 of the protein  
human lactoferrin

<400> 27

Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met  
1 5 10

<210> 28

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 16 28 of the protein  
human lactoferrin

<400> 28

Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg

1 5 10

<210> 29

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 16 29 of the protein  
human lactoferrin

<400> 29

Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys

1 5 10

<210> 30

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 16 30 of the protein  
human lactoferrin

<400> 30

Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val

1 5 10 15

<210> 31

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 16 31 of the protein  
human lactoferrin

<400> 31

Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg

1 5 10 15



<210> 32  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 13 31 of the protein  
human lactoferrin

<400> 32  
Ser Gln Pro Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg  
1 5 10 15

Lys Val Arg

<210> 33  
<211> 18  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 14 31 of the protein  
human lactoferrin

<400> 33  
Gln Pro Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys  
1 5 10 15

Val Arg

<210> 34  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 15 31 of the protein  
human lactoferrin

<400> 34  
Pro Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val  
1 5 10 15

Arg

<210> 35

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 17 31 of the protein  
human lactoferrin!

<400> 35

Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg  
1 5 10 15

<210> 36

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
  
natural or artificial origin consisting of the  
amino acids in positions 18 31 of the protein  
human lactoferrin

<400> 36

Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg  
1 5 10

<210> 37

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 19 31 of the protein  
human lactoferrin

<400> 37

Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg  
1 5 10

<210> 38

<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 20 31 of the protein  
human lactoferrin

<400> 38  
Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg  
1 5 10

<210> 39  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Peptide of  
natural or artificial origin consisting of the  
amino acids in positions 21 31 of the protein  
human lactoferrin

<400> 39  
Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg